Red Hill Bay Restoration

Operation and Maintenance Plan

This is a very brief indication of the refuge's ability and intent to operate and maintain the facility that we propose to construct. A much more detailed plan will be written if the project is funded.

The project would be folded into the daily operations and maintenance of the SBSS NWR. Initially facilities would be checked for vulnerabilities each day and assessed for wear and tear to catch potential problems early and make repairs at the earliest and least costly time. Salinities will be checked weekly to evaluate water ratio adjustments. Water levels will be static. The pumps are our greatest concern as they supply the water to maintain the habitat. The pumps we are currently proposing to use have an estimated life span of 100,000 hrs. of operation (11.4 years). The system will include a back-up pump for each water source. Pumping costs are expected to be about $20,000 per year and funded out of current refuge operations funding. Berm integrity will be assessed regularly to evaluate erosion conditions. This should not be an issue as erosion blanket will be placed on the slope of the berm at the water level. Channel maintenance for the main saltwater system should be minimal as there is little silt in the Sea water. The connection the Salton Sea will require very regular maintenance to keep up with the changing elevation of the Salton Sea, perhaps monthly. The Alamo River channel will require regular maintenance as well to excavate the heavy sediment load that is known from that source. Vegetation will likely be an issue as well. Maintenance on this channel will likely be bi-monthly. These are water conveyance management and maintenance tasks the refuge currently performs on other habitat areas, so the costs to perform these functions is no more than currently managed by the refuge. The refuge currently has about 12.5 miles of irrigation channels to maintain. This project will add less than 1.5 more miles to our existing ditch maintenance load.